

What is claimed is:

1. A compressor comprising:

a cylinder block having a plurality of cylinder bores and a first
5 muffler chamber, the first muffler chamber being formed within said
cylinder block in a space between the cylinder bores;

a chamber housing being secured to one end of said cylinder
block, said chamber housing having at least a pair of a suction
chamber and a discharge chamber located near each of the cylinder
10 bores, the discharge chamber communicating with the first muffler
chamber;

a drive shaft rotatably supported in said cylinder block;

a piston disposed in each of the cylinder bores for compressing
gas to generate compressed gas; and

15 a cam mechanism for converting rotation of said drive shaft to
reciprocating movement of said piston.

2. The compressor according to claim 1, wherein said cam
mechanism includes a swash plate placed on said drive shaft.

3. The compressor according to claim 2, wherein said swash plate
is fixedly placed on said drive shaft.

4. The compressor according to claim 2, wherein said swash plate
25 is inclinably placed on said drive shaft.

5. The compressor according to claim 1, wherein said cam
mechanism includes a wobble plate placed on said drive shaft.

6. The compressor according to claim 1, wherein said chamber
housing having a second muffler chamber therein, and wherein the
second muffler chamber communicates with the first muffler

chamber.

7. The compressor according to claim 6, wherein a plurality of the discharge chambers is defined, and wherein the discharge chambers
5 communicate with each other.

8. The compressor according to claim 1, wherein a plurality of the discharge chambers is defined, and wherein the discharge chambers communicate with each other.

10 9. The compressor according to claim 1, wherein a plurality of the first muffler chambers is formed.

10. The compressor according to claim 9, wherein the first muffler
15 chambers communicate with each other.

11. The compressor according to claim 1, wherein carbon dioxide is used as a refrigerant.

20 12. The compressor according to claim 1, wherein said piston compresses the gas at only one end of the cylinder bore.

13. The compressor according to claim 12, wherein said drive shaft is rotated by a motor.

25 14. The compressor according to claim 12, wherein said drive shaft is operably connected to a vehicle engine through a clutch mechanism.

30 15. The compressor according to claim 1, wherein said piston compresses the gas at both ends of the cylinder bore.

16. A compressor comprising:

a cylinder block having a plurality of cylinder bores and a first muffler chamber, the first muffler chamber being formed within said cylinder block in a space between the cylinder bores;

5 a chamber housing being secured to one end of said cylinder block, said chamber housing having at least a pair of a suction chamber and a discharge chamber that is located near each of the cylinder bores and a second muffler chamber which is contiguous with the first muffler chamber and communicates with the first

10 muffler chamber, the discharge chamber communicating with a pair of the first and second muffler chambers;

a drive shaft rotatably supported in said cylinder block;

a piston disposed in each of the cylinder bores for compressing gas to generate compressed gas; and

15 a cam mechanism for converting rotation of said drive shaft to reciprocating movement of said piston.

17. The compressor according to claim 16, wherein a plurality of the discharge chambers is defined, and wherein the discharge
20 chambers communicate with each other.

18. The compressor according to claim 16, wherein a plurality of pairs of the first and second muffler chambers is formed.

25 19. The compressor according to claim 18, wherein the pairs of the first and second muffler chambers communicate with each other.

20. The compressor according to claim 16, wherein said piston compresses the gas at only one end of the cylinder bore.

30 21. The compressor according to claim 16, wherein carbon dioxide is used as a refrigerant.